

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: METALUX

Report Number: P892878

Luminaire Tested: 2MB-5HL-RNDU-UNV-L835

Issue Date: 11/11/2024

**Test Information**

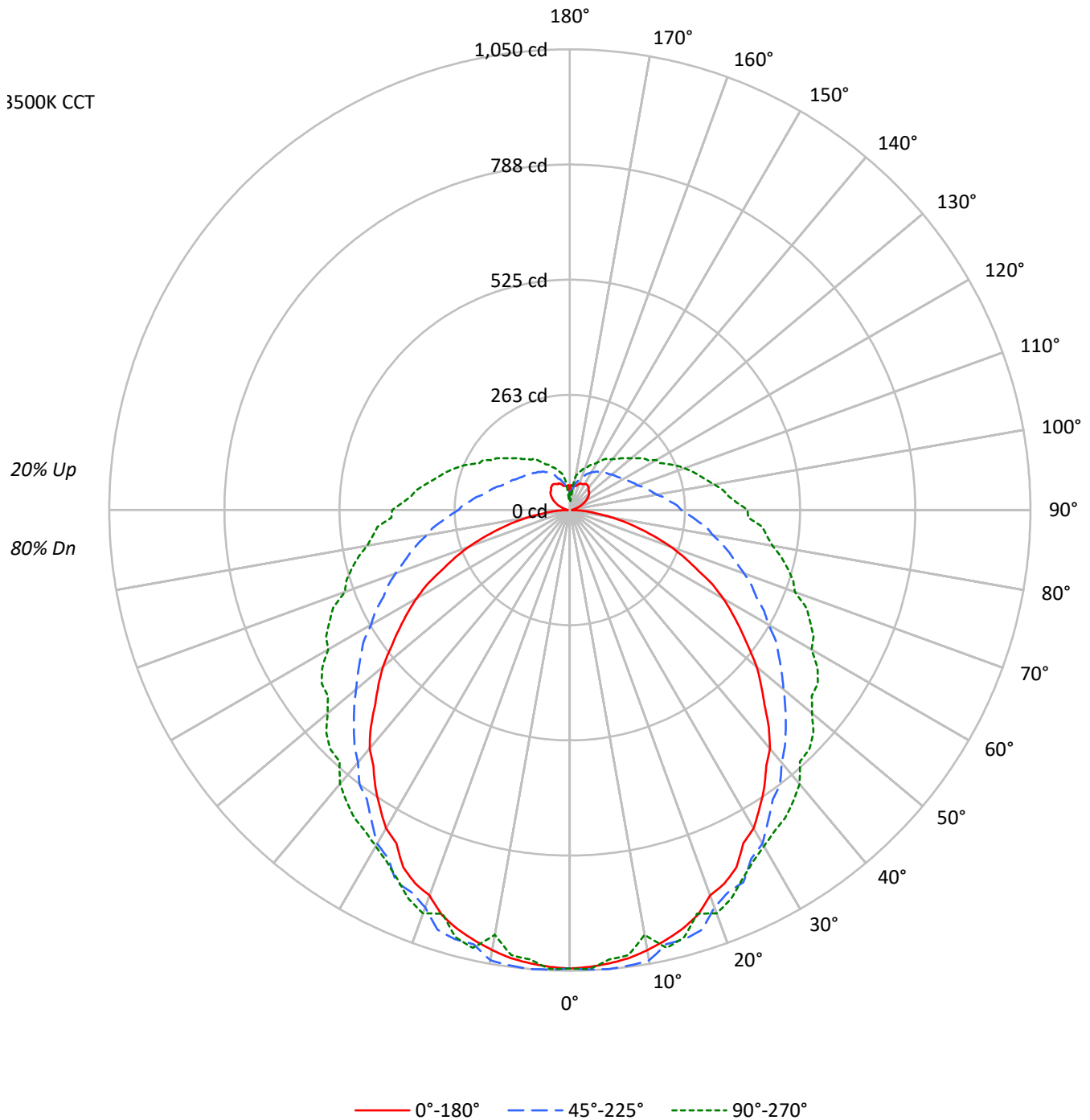
Test Method: LM-79-2019  
Report Number: P892878  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 2MB-5HL-RNDU-UNV-L835  
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 80CRI, 5  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4404.0 lumens  
Efficiency: N/A  
Efficacy: 130.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.38  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 1.98' x H: 0.21')  
CIE Type: Semi-Direct  
  
Input Watts (W): 33.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 4.5  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	114	114	114	114	109	109	109	109	100	100	100	91	91	91	83	83	83	83	83	83	80
1	102	96	91	86	97	92	87	83	84	80	76	76	73	70	69	67	65	65	65	65	61
2	92	82	75	68	87	79	72	66	72	66	61	65	61	57	60	56	53	53	53	53	49
3	83	72	63	56	79	69	61	54	63	56	51	57	52	47	52	48	44	44	44	44	41
4	76	63	54	47	72	60	52	45	55	48	43	51	45	40	46	41	37	37	37	37	34
5	69	56	47	40	66	54	45	39	49	42	37	45	39	34	41	36	32	32	32	32	29
6	64	50	41	35	61	48	40	34	44	37	32	41	35	30	37	32	28	28	28	28	26
7	59	46	37	30	56	44	35	30	40	33	28	37	31	26	34	29	25	25	25	25	23
8	55	41	33	27	52	40	32	26	37	30	25	34	28	24	31	26	22	22	22	22	20
9	51	38	30	24	49	37	29	23	34	27	22	31	25	21	29	24	20	20	20	20	18
10	48	35	27	22	46	34	26	21	31	25	20	29	23	19	27	22	18	18	18	18	16

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	14951	14951	14951
5°	14758	14493	14092
10°	14525	13998	13023
15°	14245	13345	13014
20°	13709	12557	12416
25°	13520	12155	11681
30°	13043	11449	11103
35°	12568	10639	10808
40°	12179	10109	10426
45°	11480	9633	10087
50°	11003	9131	9702
55°	10316	8746	9657
60°	9779	8313	9338
65°	8823	7976	9409
70°	7942	7792	9108
75°	6555	7640	9334
80°	4921	7541	9406
85°	3077	7659	9953

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 11480 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.4	2.3
10°-20°	283.5	6.4
20°-30°	424.8	9.6
30°-40°	509.8	11.6
40°-50°	537.7	12.2
50°-60°	518.7	11.8
60°-70°	459.9	10.4
70°-80°	379.0	8.6
80°-90°	294.6	6.7
90°-100°	229.7	5.2
100°-110°	183.2	4.2
110°-120°	146.7	3.3
120°-130°	116.5	2.6
130°-140°	89.4	2.0
140°-150°	65.0	1.5
150°-160°	41.1	0.9
160°-170°	20.1	0.5
170°-180°	4.7	0.1
0°-30°	807.7	18.3
0°-40°	1317.5	29.9
0°-60°	2373.9	53.9
0°-90°	3507.5	79.6
90°-120°	559.6	12.7
90°-150°	830.6	18.9
90°-180°	897.0	20.4
0°-180°	4404.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1045	1045	1045	1045	1045	
5°	1037	1052	1050	1041	1028	98
15°	989	1002	1013	1018	1008	278
25°	899	912	936	935	929	411
35°	773	786	806	848	856	483
45°	627	642	696	743	772	487
55°	476	504	582	656	690	427
65°	320	358	469	554	605	320
75°	165	239	376	479	514	177
85°	41	146	293	398	440	45
90°	6	115	254	367	405	5
95°	7	95	228	326	363	7
105°	16	79	184	271	305	17
115°	32	76	152	223	248	32
125°	50	76	132	182	206	45
135°	61	77	119	151	167	48
145°	70	75	107	129	143	43
155°	65	69	90	105	114	31
165°	57	59	67	78	90	17
175°	56	52	43	39	21	5
180°	40	40	40	40	40	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1045.1	1045.1	1045.1	1045.1	1045.1
2.5°	1042.1	1049.0	1048.0	1060.8	1047.0
5°	1037.2	1051.9	1050.0	1041.1	1028.4
7.5°	1030.3	1051.0	1047.0	1045.1	1023.4
10°	1018.5	1035.2	1042.1	1044.1	983.1
12.5°	1004.8	1020.5	1013.6	1022.5	1022.5
15°	989.0	1001.8	1012.6	1017.5	1007.7
17.5°	968.4	989.0	1002.8	999.8	964.4
20°	935.0	963.5	963.5	981.2	978.2
22.5°	921.2	944.8	942.8	954.6	959.5
25°	898.6	912.3	935.9	935.0	929.1
27.5°	856.3	893.7	895.6	902.5	903.5
30°	837.6	862.2	877.9	888.7	884.8
32.5°	805.2	818.0	840.6	863.2	868.1
35°	772.7	785.5	806.2	848.4	856.3
37.5°	735.4	762.9	787.5	814.0	836.6
40°	709.8	719.6	751.1	790.4	815.0
42.5°	671.5	688.2	726.5	760.0	776.7
45°	627.2	642.0	696.1	743.2	771.8
47.5°	591.8	614.5	666.6	721.6	753.1
50°	556.4	575.1	636.1	687.2	720.6
52.5°	513.2	538.8	608.6	685.2	695.1
55°	475.8	504.3	582.0	655.7	690.2
57.5°	439.5	465.0	557.4	623.3	669.5
60°	404.1	431.6	523.0	601.7	636.1
62.5°	365.7	392.3	499.4	583.0	626.3
65°	319.5	357.9	469.0	554.5	604.6
67.5°	283.1	330.3	448.3	547.6	584.0
70°	244.8	294.0	422.7	513.2	545.6
72.5°	204.5	265.4	397.2	503.4	533.8
75°	165.2	238.9	376.5	478.8	514.2
77.5°	131.7	212.4	354.9	459.1	493.5
80°	95.4	186.8	331.3	434.5	469.0
82.5°	64.9	164.2	315.6	420.8	453.2
85°	41.3	145.5	293.0	398.2	440.4
87.5°	19.7	128.8	273.3	381.5	407.0
90°	5.9	115.0	253.6	366.7	405.0
92.5°	4.9	104.2	244.8	345.1	381.5
95°	6.9	95.4	228.1	326.4	362.8
97.5°	9.8	88.5	217.3	310.7	352.0
100°	10.8	82.6	201.5	297.9	334.3
102.5°	12.8	79.6	191.7	285.1	318.5
105°	15.7	78.7	183.8	271.3	304.8
107.5°	19.7	74.7	175.0	252.7	292.0
110°	23.6	75.7	164.2	244.8	278.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	28.5	74.7	159.3	230.1	264.5
115°	32.4	75.7	152.4	223.2	247.7
117.5°	37.4	74.7	147.5	208.4	232.0
120°	42.3	75.7	140.6	203.5	228.1
122.5°	46.2	76.7	136.7	191.7	211.4
125°	50.1	75.7	131.7	181.9	205.5
127.5°	54.1	76.7	128.8	173.0	193.7
130°	57.0	75.7	125.8	166.1	183.8
132.5°	60.0	75.7	120.9	158.3	175.0
135°	61.0	76.7	119.0	151.4	167.1
137.5°	62.9	77.7	115.0	144.5	157.3
140°	66.9	77.7	113.1	140.6	151.4
142.5°	67.8	75.7	109.1	132.7	144.5
145°	69.8	74.7	107.2	128.8	142.6
147.5°	69.8	74.7	102.2	120.9	133.7
150°	68.8	71.8	99.3	116.0	124.9
152.5°	66.9	71.8	94.4	111.1	117.0
155°	64.9	68.8	90.4	105.2	114.0
157.5°	65.9	67.8	83.6	102.2	106.2
160°	63.9	64.9	75.7	96.3	102.2
162.5°	61.0	61.9	73.7	88.5	97.3
165°	57.0	59.0	66.9	77.7	90.4
167.5°	56.0	55.1	62.9	69.8	85.5
170°	56.0	54.1	56.0	59.0	78.7
172.5°	55.1	52.1	50.1	47.2	58.0
175°	56.0	52.1	43.3	39.3	20.6
177.5°	57.0	53.1	42.3	29.5	21.6
180°	40.3	40.3	40.3	40.3	40.3



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	16.37	17.68	17.01	18.35	19.12	19.52	20.83	20.17	21.50	22.27
	3H	17.84	19.04	18.50	19.71	20.52	22.35	23.55	23.01	24.23	25.03
	4H	18.32	19.46	18.99	20.14	20.96	23.77	24.91	24.44	25.60	26.41
	6H	18.61	19.67	19.29	20.36	21.19	25.25	26.31	25.93	27.01	27.84
	8H	18.66	19.68	19.36	20.40	21.23	26.00	27.02	26.70	27.74	28.57
	12H	18.69	19.66	19.39	20.37	21.24	26.82	27.79	27.52	28.50	29.37
4H	2H	17.47	18.61	18.15	19.30	20.11	19.89	21.03	20.56	21.71	22.53
	3H	19.19	20.17	19.88	20.89	21.72	22.95	23.93	23.64	24.65	25.48
	4H	19.80	20.70	20.50	21.42	22.28	24.56	25.46	25.26	26.18	27.05
	6H	20.22	21.02	20.94	21.77	22.63	26.24	27.04	26.96	27.79	28.65
	8H	20.33	21.08	21.06	21.83	22.71	27.11	27.86	27.84	28.61	29.49
	12H	20.39	21.08	21.14	21.85	22.74	28.05	28.74	28.80	29.51	30.40
8H	4H	20.80	21.55	21.53	22.30	23.18	24.75	25.51	25.48	26.25	27.14
	6H	21.46	22.10	22.21	22.89	23.77	26.62	27.26	27.38	28.05	28.93
	8H	21.68	22.26	22.45	23.05	23.95	27.65	28.23	28.42	29.02	29.92
	12H	21.84	22.35	22.61	23.13	24.09	28.79	29.31	29.56	30.09	31.04
12H	4H	21.11	21.80	21.86	22.57	23.46	24.75	25.44	25.50	26.21	27.10
	6H	21.93	22.51	22.70	23.30	24.20	26.66	27.24	27.43	28.03	28.93
	8H	22.28	22.80	23.05	23.58	24.53	27.76	28.27	28.53	29.05	30.01